

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

Jyväskylän Patenttitoimisto
Berggren Oy Ab
Ohjelmakaari 1
FIN-40500 JYVÄSKYLÄ

RECEIVED

10.12.03

Jyväskylän Patenttitoimisto
Berggren Oy Ab

PCT

WRITTEN OPINION

(PCT Rule 66)

Date of mailing
(day/month/year)

08-12-2003

Applicant's or agent's file reference

BP105358

REPLY DUE

within 60 days
from the above date of mailing

6.2.04 *SK*

International application No.

PCT/FI03/00033

International filing date (day/month/year)

17-01-2003

Priority date (day/month/year)

18-01-2002

International Patent Classification (IPC) or both national classification and IPC⁷

G06F 3/033

Applicant

Nokia Corporation et al.

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 18-05-2004

Name and mailing address of the IPEA/SE

Patent- och registreringsverket
Box 5055
S-102 42 STOCKHOLM

Facsimile No. 08-667 72 88

Telex

17978

PATOREG-S

Authorized officer

JAN SILFVERLING /LR

Telephone No. 08-782 25 00

Form PCT/IPEA/408 (cover sheet) (January 1998)

EV 452362765 US

I. Basis of the opinion

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the claims:
 pages _____, as originally filed
 pages _____, as amended (together with any statement) under article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the drawings:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheet/fig _____

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2 (c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims

2-3, 11, 17-18

YES

Claims

1, 4-10, 12-16, 19-28

NO

Inventive step (IS)

Claims

YES

Claims

1-28

NO

Industrial applicability (IA)

Claims

1-28

YES

Claims

NO

2. Citations and explanations

Document cited in the International Search Report:

D1: US 6211856

D2: US 6073036

D3: JP 09 091486 abstract

The problem to be solved by the invention is how to make inputs from a keyboard shown at a small touch screen in a mobile device.

D1, which is considered to be the most relevant document relates to a mobile device with a touch screen displaying a collection of icons at a scale in which the individual functions of each icon is recognizable, but too small to access individual features of the function. When touching an area of the screen including an icon, the screen provides a zoomed version of that area so that the user can select a desired feature.

D2 shows a mobile phone with a touch screen with an input area and an output area. On the input area of the screen is a plurality of symbols displayed. When touching the symbol area the touched portion of the display is magnified and a symbol can be selected. The selected symbol is then shown in the output area.

D3 is showing the state of the art.

The invention according to claims 1, 4-10, 12-16 and 19-28 is considered to lack novelty in view of D1.

.....

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Box V

The invention according to claims 2-3 and 17-18 relates to manipulating the input and output area sizes. D1 is not showing that there is an output area, but in the case of a PDA (see figure 1 A-C) there must be an output area not shown. However, from D2 (see figure 5D) there is known a display with an input and an output area. To make it possible to manipulate the size of these areas must be an obvious measure for a person skilled in the art and therefore, the invention according to claims 2-3 and 17-18 has no inventive step.

The invention according claim 11 is considered to be obvious for a person skilled in the art knowing D1.

6 February 2004

Patent- och registreringsverket
Valhallavägen 136
P.O. Box 5055
S-102 42 STOCKHOLM
Sweden

TELEFAX 3 pp. Original by mail
FAX: 990-46-8-667 7288

Authorized Officer: Jan Silfverling
Our ref: BP105358/TN/SPO

REPLY TO WRITTEN OPINION
INTERNATIONAL PATENT APPLICATION PCT/FI03/00033
APPLICANT: NOKIA CORPORATION
DUE DATE: 6 FEBRUARY 2004

On account of the Written Opinion issued on 8.12.2003 we submit the following:

The publication D1 (US 6,211,856 B1) discloses only an input portion of a touch sensitive display. Although figures 1A-C of D1 disclose a personal digital assistant (PDA) device, only input portion of the PDA is mentioned in D1. We agree with the examiner, that in PDA there probably is an output portion, but in D1 the output portion is absent. An output portion is left without any indication in D1, and it is of no importance to the solution presented in D1. The presented solution relates only to an input portion, and especially functions to be controlled through it.

D1 discloses a touch-sensitive display, a graphical user interface (GUI), and a controller for enabling a user to control the system through a touch screen functionality of the GUI [paragraph 2, lines 16-19]. The present application, on the other hand, is built on a basic assumption that a touch screen is used both for input and output [page 3, lines 4-5]. These input and output portions are clearly stated in the independent claims 1 and 16 of the application: "...characterized in that the touch sensitive display is divided into adjustable input and output portions (200)..." Since the output portion is totally absent in disclosure of D1, the invention of the present application is novel in view of publication D1.

Jyväskylän Patentti-
toimisto Berggren Oy Ab
Ohjelmakaari 1
FIN-40500 Jyväskylä
FINLAND

Käyntiosoite • Office: Puh. • Tel.:
Ohjelmakaari 1
Jyväskylä
Nat. (014) 445 1415
Int. +358 14 445 1415
Fax (014) 445 1416
Int. +358 14 445 1416

E-mail:
email.box@berggren.fi
http://www.berggren.fi

Pankit • Bankers:
NORDEA 157330-15411
SWIFT NDEAFIHH
SAMPO 800017-90104
SAMPO USD 800060-40136442
SWIFT PSPBFIHH

Yhtiö • Company:
knnro 80.802
Trade Reg. No. 80.802
Y 0107002-7
VAT FI01070027
Kotipaikka Helsinki

Pääkonttori •
Head office:
Berggren Oy Ab
Jaakonkatu 3A
FIN-00100 Helsinki
FINLAND

EV 452362765 U.S

As the examiner points out, publication D2 (US 6,073,036) discloses input and output portions. Since the invention of the present application starts and is based on the idea of dividing touch sensitive display into input and output portions, publication D2 represents the closest prior art. However, output portion of D2 does not correspond to output portion presented in the present application, since there are substantial differences between these two. In D2 an output portion is only mentioned i.e. existing, whereas the present application, as stated previously, is built on a basic assumption that a touch screen is used both for input and output [page 3, lines 4-5; claims 1 and 16]. Further the D2 states in paragraph 10, lines 31-38: "...it should be realized that not all of the display 20 need be touch sensitive, or operated in a touch-sensitive manner. By example, a portion of the display 20 may be used in a conventional fashion for displaying user-selected symbols,..., while the remainder of the display 20 is operated as the user input device in accordance with this invention." Thus the output portion in D2 is determined to be a conventional output mean, which is kept separate from the inventive input portion of D2. Even if the output and input portions of D2 would be implemented in the same display unit, the previous quotation of D2 unambiguously states that the part of the display used as an output portion need not be touch sensitive, or operate in a touch sensitive manner. Thus the input portion of D2 is determined to be touch sensitive and a separate output portion can be implemented differently. This strongly implies that these portions are separate, independent portions, which are implemented and treated as single, independent blocks. Further it is clearly and unambiguously stated, that the invention of D2 relates to input portion, and the inventive input portion of D2 can be used together with conventional output portions. The conventional use of display for displaying items in D2 leads away from the invention of the application, which starts by a step of dividing the touch sensitive screen into adjustable input and output portions [independent claims 1 and 16].

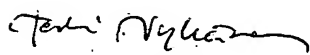
The examiner states, that there must be an output area in PDA of D1. The fact that a PDA usually includes an output area, does not prove, or even imply, that the input area would be combined with the output solution presented in D2. On the contrary, we are in the opinion, that a skilled person would have, by knowing the teachings of D1 and D2, implemented the output portion as a separate functioning block, from the inventive input portion, since separate output and input means are commonly used in the state of the art in the field of small mobile devices. Without a hindsight of the present invention a skilled person would not have come to a technical solution, nor achieved technical advantages disclosed in the invention of the present application.

The invention presented and claimed in the present application is based on the idea of dividing the touch sensitive screen into adjustable input and output portions. This starting with dividing the area of the touch sensitive screen is inventive in view of teachings of D1 and D2, and makes the solution of the application more versatile and applicable to many different purposes. The size of the portions can be application-specific, when the dimensions of the portions

are defined by an application. Typically the size and type of a character set presented in an input portion defines size of the input portion, and consequently size of an output portion, as presented in last paragraph of page 6. Sizes of portions can be user-specifically adjustable, as presented in page 8, lines 6-7. This inventive idea has the advantage that sizes of input and output portions, and the relationship between their dimensions, can be adjusted. This idea of adjustable input and output portions makes the invention useful and applicable for many different purposes, uses and applications. The portions of display can be optimized to serve the respective purpose the best way possible. For example an output portion is advantageously maximized in order to see as much text as possible simultaneously. Or, when user wants to write, it is advantageous to minimize the output portion and maximize the input portion in order to present a character set of an input portion as wide as possible. This adjustability makes the presented interface user-friendly and convenient to handle, and widens the range of applications that are adaptable to a small device.

Since solutions or inventive ideas of publications D1 and D2 do not relate to output portion, we are strongly in the opinion that the invention of the present application is inventive. The advantages achieved make the present invention more versatile and adaptable. Not only magnification of input portion items, but at first adjusting appropriate sizes for input and output portions makes the invention more usable and convenient for many different purposes. This is a clear advantage compared to prior art solutions, thus making the invention not obvious to a skilled person in view of D1 and/or D2.

JYVÄSKYLÄN PATENTTITOIMISTO
BERGGREN OY AB



Terhi Nykänen
Patent Attorney